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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,929	05/30/2001	Hiroyuki Morimatsu	L7016.011 19	5167

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Washington, DC 20036

EXAMINER

BRINICH, STEPHEN M

ART UNIT PAPER NUMBER

2624

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/866,929

Applicant(s)

MORIMATSU, HIROYUKI

Examiner

Stephen M Brinich

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,6,9 and 11 is/are rejected.
- 7) ☒ Claim(s) 2-4,7,8,10 and 12-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, lines 3-4, the term "said non-periodic dot output thickness region" lacks proper antecedent basis.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5-6, 9 & 11, insofar as claim 6 is understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Lin et al (EP 817468) or Holladay et al.

Re claims 1 & 11, Lin et al (Figure 2) or Holladay et al (Figure 2) discloses an image gradation modulation system in which an original image is subjected to halftone processing to produce output halftone dots of fewer color levels ( $2^n$  levels in the indicated n-bit halftone output). The resulting halftone dot

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output is a mixture of periodic (Lin et al 150,154,158; Holladay et al 100,102,104) and non-periodic (Lin et al 152; Holladay et al 108) dot outputs.

Re claims 5-6, Lin et al (column 12, line 34 - column 13, line 12) and Holladay et al (column 7, lines 4-42) disclose the use of a periodic dot output screen of threshold values and an error diffusion halftone process.

Re claim 9, Lin et al (Figure 8) and Holladay et al (Figures 3A-3C) show that the halftone dots are isolated for at least a portion of the output intensity range

***Allowable Subject Matter***

4. Claims 2-4, 7-8, 10, & 12-15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter:

Re claims 2-3 & 8, the art of record does not teach or suggest the recited selection of low, intermediate, and high thickness regions of an image in conjunction with an arrangement for generating an image consisting of a mixture of both periodic and non-periodic dot outputs.

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Re claims 4 & 15, the art of record does not teach or suggest the recited selection of an edge portion in conjunction with an arrangement for generating an image consisting of a mixture of both periodic and non-periodic dot outputs.

Re claims 7, 10, & 14, the art of record does not teach or suggest the recited error weighting coefficient properties in conjunction with an arrangement for generating an image consisting of a mixture of both periodic and non-periodic dot outputs.

Re claim 12 (and dependent claim 13), the art of record does not teach or suggest the recited decision whether to include the periodic or non-periodic dot outputs in conjunction with an arrangement for generating an image consisting of a mixture of both periodic and non-periodic dot outputs.

#### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 703-305-4390. The examiner can normally be reached on weekdays 7:00-4:30, alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2600 Customer Service center at 703-306-0377.

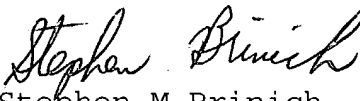
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If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 703-308-7452.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 703-872-9306.

Hand-carried or courier-delivered correspondence pertaining to this application should be directed to

US Patent and Trademark Office  
220 South 20<sup>th</sup> Street  
Crystal Plaza Two, Lobby, Room 1B03  
Arlington VA 22202

  
Stephen M Brinich  
Examiner  
Art Unit 2624

smb  
November 15, 2004